

**IN-CIRCUIT CONFIGURATION ARCHITECTURE WITH CONFIGURATION
ON INITIALIZATION FUNCTION FOR EMBEDDED CONFIGURABLE
LOGIC ARRAY**

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ABSTRACT

[0061] A system-on-a-chip integrated circuit that includes a configurable logic array, a processor core, and a memory adapted to store instructions for a mission function, and instructions for a configuration load function used to load configuration data on to the integrated circuit via an input port on the integrated circuit from an external source. The processor fetches and executes the instructions from the memory. Configuration data received using the configuration load function is used to configure the configurable logic array. Instructions are stored in the memory for an initialization function used to transfer the configuration data to the programmable configuration points within the configurable logic array in response to an initialization event